



PATENT
Attorney Docket No. 401432

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:

ALFRED WING KIN CHAN

Art Unit: 3679

Application No. 09/982,993

Examiner: E. Nicholson

Filed: October 22, 2001

For: PIPE FITTINGS

**TRANSMITTAL OF
APPELLANT'S APPEAL BRIEF**

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RECEIVED
JAN 16 2004
GROUP 3600

Dear Sir:

In accordance with 37 CFR 1.192, appellant hereby submits Appellant's Brief on Appeal in triplicate.

The items checked below are appropriate:

1. Status of Appellant

This application is on behalf of ☒ other than a small entity or ☐ a small entity.

2. Fee for Filing Brief on Appeal

Pursuant to 37 CFR 1.17(c), the fee for filing the Brief on Appeal is for: ☐ other than a small entity or ☒ a small entity.

Brief Fee Due \$330.00

3. Oral Hearing

☐ Appellant requests an oral hearing in accordance with 37 CFR 1.194.

4. Extension of Time

☐ Appellants petition for a one-month extension of time under 37 CFR 1.136, the fee for which is \$110.00.

☒ Appellant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that

appellants have inadvertently overlooked the need for a petition and fee for extension of time.

Extension fee due with this request: \$

5. Total Fee Due

The total fee due is:

Brief on Appeal Fee	\$330.00
Request for Oral Hearing	\$ 0.00
Extension Fee (if any)	\$110.00

Total Fee Due: \$330.00

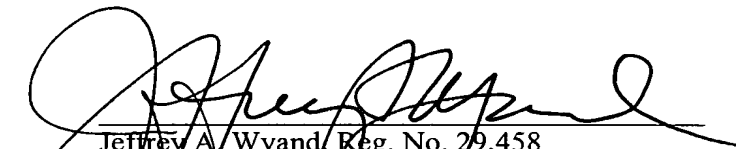
6. Fee Payment

- ☐ Attached is a check in the sum of \$
- ☒ Charge Account No. 12-1216 the sum of \$330.00. A duplicate of this transmittal is attached.

7. Fee Deficiency.

- ☒ If any additional fee is required in connection with this communication, charge Account No. 12-1216. A duplicate copy of this transmittal is attached.

Respectfully submitted,


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Date: January 12, 2004
JAW:ves

Appeal Brief Transmittal (Revised 10/1/03)



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GROUP 3600

Dear Sir:

In support of the appeal from the final rejection dated July 10, 2003,
Appellant now submits his Brief.

Real Party In Interest

The patent application that is the subject of this appeal is assigned to Hong Kong
and China Gas Company Limited.

Related Appeals and Interferences

To the knowledge of the Appellant, the Appellant's legal representative, and the
Assignee, there is no other pending appeal or interference that will directly affect, by
directly affected by, or have a bearing on the decision in this Appeal.

Status of Claims

As filed, the application included four claims, two of which were multiply
dependent. The multiple dependencies were eliminated in a Preliminary Amendment by
adding two claims so that claims 1-6 were presented for examination. No claim has been
added or cancelled so that claims 1-6 remain pending. All claims are finally rejected.

01/13/2004-MGBREM1 00000024 121216 09982993

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APPENDIX

1. A pipe fitting comprising a hollow body and at least one open end for connection to a pipe, the open end including
an internally threaded portion having a wall with a thickness between internal and external diameters of the internally threaded portion, and internal screw threads for connection to a pipe, and
an integral extension collar adjacent the internally threaded portion, having an inner diameter larger than the internal diameter of the internally threaded portion, for surrounding unused trailing screw threads of a pipe connected to the pipe fitting and forming an annular gap with a pipe connected to the fitting for holding a sealing compound, wherein the extension collar has a wall thickness substantially equal to the wall thickness of the internally threaded portion, and an outer diameter larger than the outer diameter of the internally threaded portion.
2. The pipe fitting as claimed in claim 1, wherein the internal screw threads are tapered outwards with respect to an axis of the open end.
3. The pipe fitting as claimed in claim 1, made of a galvanized iron material.
4. The pipe fitting as claimed in claim 1, wherein the fitting is selected from the group consisting of an elbow joint, a T joint, a straight joint, and an end cap.
5. The pipe fitting as claimed in claim 2, made of a galvanized iron material.

Status of Amendments

An Amendment after Final Rejection was filed on September 3, 2003. In that Amendment a minor informality in claim 2 was corrected, but there were no other amendments. According to the Advisory Action mailed October 2, 2003, the Amendment was entered. The final rejection of all of claims 1-6, which appear in the Appendix, is appealed.

Summary of Invention

The invention concerns a pipe fitting that has a hollow body and at least one open end for connection to a pipe. The pipe fitting, at the open end, includes an internally threaded portion. Referring to Figure 1, a pipe fitting 10, which is an elbow joint, actually has two open ends 12. One of those open ends is shown partially sectioned and that end is shown receiving a pipe 100 with external threads that engage the internal threads 13 of the pipe fitting. That fitting, specifically at the internally threaded portion, has a wall thickness.

The fitting also includes an extension collar 14 at the opening of the fitting and adjacent to the internally threaded portion of the fitting. That collar 14 has a larger internal diameter than the internal diameter of the internally threaded portion of the fitting. When a pipe, such as pipe 100, threadedly engages the fitting, the collar surrounds trailing external threads on the pipe that are not engaged with the internal threads of the fitting. An annular gap 15 is present between a pipe threadedly engaging the end of the fitting and the collar 14. A sealing compound, which is not part of the claimed invention, but is labeled X in Figure 1, is injected into this annular gap for sealing the joint and protecting the pipe 100. Other configurations of fittings incorporating the novel features of the invention are illustrated in Figures 2-4 of the patent application.

An important feature of the invention concerns the wall thickness of the collar 14. That wall thickness is substantially equal to the wall thickness of the internally threaded portion of the fitting, generally indicated at 12 in Figure 1. That requirement means that the outer diameter of the collar 14 is larger than the outer diameter of the internally threaded portion of the fitting.

Issues

1. Are the claims definite?
2. Is claim 1 anticipated by Miles (U.S. Patent 272,574)?

Grouping of Claims

All claims stand or fall together.

Argument

Claim Objection

Claims 1-6 were stated to be objected to as informal for reciting that the thickness of the collar is *substantially* equal to the thickness of the internally threaded portion. The Examiner stated that it was unclear how this relationship can exist because the internally threaded portion of the fitting is depicted as tapered and, therefore, varies in thickness as shown in the drawings, but the collar does not vary in thickness as shown in the drawings. Although this commentary stated that the claims were objected to, raising the issue as to whether the objection is subject to petition or appeal, it is apparent that the statement of the objection is actually a rejection pursuant to some paragraph of 35 U.S.C. 112. Therefore, the claim objection is a subject of this Appeal.

Claim 1 is the only pending independent claim. Claim 1 does not require the tapering of the internal threads of the fitting. Only claim 2 specifies that the internal threads are tapered, a limitation that is therefore carried forward in claims 5 and 6, but not in claims 3 and 4. Therefore, the objection/rejection of claims 1-6 is not consistent with the subject matter claimed. Further, reference to the drawings to determine the scope of the claims and whether the claims might be the subject of a rejection or objection, founded upon 35 U.S.C. 112, is inappropriate. Claims may be broader or narrower than depicted embodiments and it is inappropriate to read limitations into claims based upon drawing figures. For that reason, the objection/rejection is incorrect and cannot be sustained with respect to claims 1-6 or, at the very minimum, with respect to claims 1, 3, and 4.

All of the words of a claim must be given proper consideration in determining the scope of the claim and whether that claim is definite. Claim 1 describes the wall thickness of the internally threaded portion of the fitting as “substantially” equal to the wall thickness of the extension collar. As well established in U.S. patent practice and

law, this description does not require exact equality. Further, the description is consistent with the patent application itself.

The paragraph at page 4, beginning in line 10 of the patent application states that the angle of taper of the internal threads of the depicted fitting, when there is such a taper, is “about 1° to 5°”. With such a small angle of taper, the amount of variation in the thickness of the wall of the internally threaded portion of the fitting is very small for a pipe fitting that has an internally threaded portion of conventional and rational length. Appellant agrees that the wall thickness of the internally threaded portion of the fitting is not absolutely uniform. However, based upon the slight taper, when present, the wall thickness is substantially uniform. Therefore, an appropriate comparison can be made to determine whether the wall thickness of the extension is substantially equal to the wall thickness of the internally threaded portion of the fitting.

Moreover, as already noted, the word “substantially” is frequently used in patent claims to indicate the absence of an exact match between two elements or terms. The term “substantially” does not open a claim to rejection or objection as indefinite. A recent application of this principle appears in Anchor Wall Systems Inc. v. Rockwood Retaining Walls Inc., 67 USPQ2d 1865, 1874 (Fed. Cir. 2003). In that opinion, the Court discusses the term “generally parallel” and holds that the term does not require precise parallelism. The term “substantially” is discussed in the same context as “generally”. The reasoning and the holding of Anchor Wall apply here to the term “substantially equal.” The term clearly means approximately equal, not precisely equal, and does not make any of claims 1-6 indefinite or objectionable.

In summary, no claim is open to objection or rejection as indefinite because of the use of the term “substantially equal” in claim 1. The objection/rejection improperly (i) relates to a claim limitation appearing only in some dependent claims, (ii) applies a claim interpretation based upon embodiments of the invention rather than the invention claimed, (iii) asserts that an accepted claim term makes the claims indefinite. The term only provides for the minor variation between the thicknesses stated to be substantially equal in embodiments in which there is some minor inequality.

Because the Examiner has erred and the claims have been improperly interpreted and rejected in a way that is inconsistent with the precedents of the Board and Court of Appeals for the Federal Circuit, the Board should reverse the rejection of claims 1-6, which has been inaccurately characterized as an objection.

Prior Art Rejection

The rejection of claim 1, the only pending independent claim, as anticipated by Miles is erroneous. Of the dependent claims, claim 4 was likewise rejected as anticipated by Miles. Other dependent claims were rejected as obvious over Miles in view of various secondary references. It is apparent that the rejection of all claims is founded upon the rejection of the sole independent claim as anticipated by Miles. Thus, upon reversal of that rejection, all other rejections fail and claims 1-6 must be allowed.

The prior art rejection of claim 1 is erroneous because it is based upon a speculative interpretation of the figures of Miles and not on any objective disclosure of Miles.

According to the pertinent part of the rejection, the “end portion of the collar (b) [of Miles] appears to be the same thickness as the internal thread portion (S).” Appellant respectfully disagrees.

The internally threaded portion of the fitting illustrated in the single figure of Miles is identified with the reference letter S. The collar has been identified by the Examiner as the element with reference letter b. There is an end on the collar not given a separate reference letter in Miles. It is apparent that the extension collar b, neglecting the end of the fitting, is substantially thinner than the internally threaded portion S and must be substantially thinner in order to receive the lead or other caulking material interposed between the collar b and the pipe a. This conclusion follows because there is no change in outer diameter of the pipe fitting of Miles between those two sections, i.e., the internally threaded portion and the portion receiving the caulking.

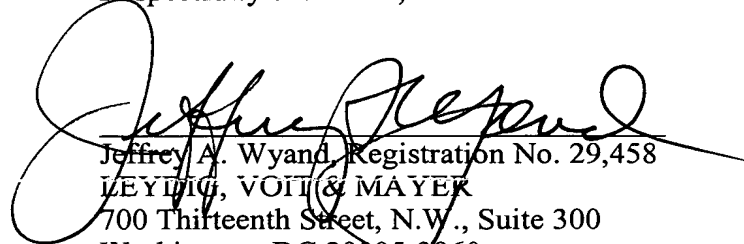
The distal end of the pipe fitting in Miles’ figure has a greater wall thickness than the intermediate portion. However, it is clear from an inspection of Miles’ figure that the wall thickness of that distal end is substantially less than the wall thickness of the internally threaded part S. The visual interpretation of the Miles disclosure, if permitted, is simply incorrect. Furthermore, there is no textual description within Miles suggesting that the thicknesses of these parts of Miles’ fitting should be the equal, substantially equal, or different. Therefore, the conclusion that Miles anticipates claim 1 is without any support in Miles and cannot be affirmed.

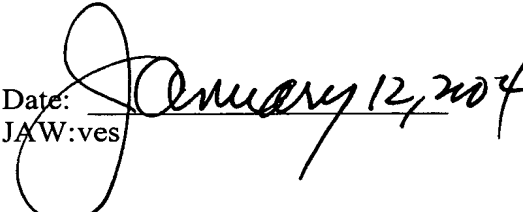
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Summary

For the foregoing reasons, the rejection of claim 1 should be reversed and all of claims 1-6 allowed.

Respectfully submitted,


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